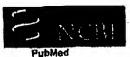
Blast Result

4/15/03 12:07 PM



## Blast 2 S qu nc s results

Entrez

BLAST

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Structure

### BLAST 2 SEQUENCES RESULTS VERSION BLASTP 2.2.5 [Nov-16-2002]

Matrix BLOSUM62 | gap open: 11 gap extension: 1 x dropoff: 50 expect: 10.00 wordsize: 3 Filter Align

Sequence 1 gi 3702836 hASIC3 [Homo sapiens] Length 531 Sequence 2 gi 13592019 P2X3 [Rattus norvegicus] Length 397 N significant similarity was found

4/15/03 12:05 PM

# Align two sequences

# Tue Apr 15 17:04:02 BST 2003

| >gi 135<br>>gi 370<br>scoring | 92019 re<br> 2836 gb<br>  matrix | ef NP_112<br> AAC62935<br>: , gap | .1  hASIC<br>penalties | X3 [Ratt<br>3 [Homo s | apiens],   | 397 aa 1<br>531 aa | 78.                                       |  |
|-------------------------------|----------------------------------|-----------------------------------|------------------------|-----------------------|------------|--------------------|-------------------------------------------|--|
|                               |                                  |                                   | 10                     | 4                     | 20         | 30                 | 40                                        |  |
| /usr/t                        | MNCIS                            |                                   | <b>DFFTYETTK</b>       | SVVVI                 | KSWTI      | SIINRAVQLL         | IISYFVGW                                  |  |
|                               | :. :                             |                                   |                        | :. :                  |            | : :::              |                                           |  |
| gi[370                        | MKPTSGF                          |                                   |                        |                       |            | emwaaavvls         | _                                         |  |
|                               |                                  | 10                                | 20                     | 30                    | 40         | 50                 | 60                                        |  |
|                               |                                  |                                   | 50                     | 60                    |            | 70                 |                                           |  |
| /usr/t                        | V                                |                                   |                        |                       | VKGFGR     | YANR               | VMDVS                                     |  |
|                               | •                                | : :. :                            | . :                    |                       | :          |                    | : .                                       |  |
| gi 370                        | AERVRYY                          | (refhhqta                         | LDERESHRI              | VFPAVTLCN             | inplrrsrl: | rpndlhwags         | allgldpa 🖰                                |  |
|                               |                                  | 70                                | 80                     | 90                    | 100        | 110                | 120                                       |  |
|                               | 00                               |                                   | 00                     | 100                   | .10        | 100                | 120                                       |  |
| · /20=/+                      | 80<br>DVVIII                     |                                   |                        | 100                   |            | TZU<br>YRCVSDSQ-C  | 130                                       |  |
| /usi/c                        | D1V1                             |                                   |                        |                       |            | : ::               |                                           |  |
| ai1370                        |                                  |                                   |                        |                       |            | LDCRFRGQPC         |                                           |  |
| 5-7                           |                                  | 130                               | 140                    |                       | 160        | 170                |                                           |  |
|                               |                                  |                                   |                        |                       | *          | •                  |                                           |  |
|                               | 140                              |                                   |                        | 150CPTEVD             |            |                    |                                           |  |
| /usr/t                        |                                  | CVNYSS                            | VLRTC-                 |                       |            |                    |                                           |  |
| -41270                        |                                  | · · · · · ·                       | .::                    | ocualiei ni           | !          | :<br>LPVWRDNEE1    | : ::                                      |  |
|                               | 80                               |                                   |                        | 210                   |            |                    | PERGIKA                                   |  |
| _                             | •                                | 130                               | 200                    | 210                   | 220        | 230                |                                           |  |
|                               | 160                              |                                   | 170                    | . 18                  | 0          | 190                | 200                                       |  |
| /usr/t                        | TVE                              | MPIMME                            | AENFT                  | IFIKNSI               | RFPLFN     | Fekgnllpni         | TOKDIKEC                                  |  |
|                               |                                  |                                   |                        | :                     |            |                    |                                           |  |
|                               |                                  |                                   |                        |                       |            | CSSASLNPN?         | -epepsop                                  |  |
| 2                             | 40                               | 250                               | 260                    | 270                   | 280        | 390                |                                           |  |
|                               | 210                              | 0 2                               | 220                    | 230                   | 240        | 250                | 260                                       |  |
| /usr/t                        |                                  | •                                 |                        |                       |            | VCDLDK             |                                           |  |
|                               |                                  |                                   |                        |                       |            | ::                 | -                                         |  |
| gi 370                        | LGSPSP                           | SPSPPYTL                          | MGCRLAC                | et-ryvarko            | GCRMVYMPG  | DVPVCS-PQ          | OYKNC                                     |  |
|                               | 300                              | 310                               | 320                    | 0 3                   | 130        | 340                | 350                                       |  |
|                               |                                  | 270                               | 222                    |                       |            |                    |                                           |  |
| /1100/0                       | CEMBAN                           | 270                               |                        | BOLVVVVV              | 290        |                    | 300                                       |  |
| / 451/ [                      |                                  |                                   | . : .                  |                       |            | LLK                | A                                         |  |
| ai 1370                       |                                  |                                   |                        |                       | RIPSRAAARE |                    | ;<br>************************************ |  |
| <b>5</b> -,-,-                |                                  |                                   |                        |                       |            |                    |                                           |  |
|                               |                                  | 360                               |                        |                       | 390        | 400                | 410                                       |  |

Sequence Alignment Output

4/15/03 12:05 PM

320 330 310 /usr/t FGIRPDVLVYGNAGK-----FNIIPTIISSVAAFTSVGVGTVL-----CD11---LLN g11370 LDIFFEALNYETVEQKKAYEMSELLGDIGGOMGLFIGASLLTILEILDYLCEVFRDKVLG 430 440 450 470 360 370 350 /usr/t flkgadhykarkfeevtettlkgtastn-----PVFASDQATVEKQSTDSG--AYSIG qi|370 YFWNRQHSQRHSSTNLLQEGL-GSHRTQVPHLSLGPRPPTPPCAVTKTLSASHRTCYLVT 500 510 480 490 /usr/t H-

gi(370 QL 530

Elapsed time: 0:00:00

Rhet Result

4/15/03 11:45 AM



#### Blast 2 Sequ nces results

Entrez

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Taxonomy

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#### BLAST 2 SEQUENCES RESULTS VERSION BLASTP 2.2.5 [Nov-16-2002]

Matrix BLOSUM62 gap open: 11 gap extension: 1 x dropoff: 50 expect: 10.00 wordsize: 3 Filter Align

Sequence 1 gi 3702836 proton-gated cation channel subunit [Homo sapiens] Length 531
Sequence 2 gi 12643353 P2X purinoceptor 2 (ATP receptor) (P2X2) (Purinergic receptor) Length 471
No significant similarity was found

4/15/03 1:50 PM

## Align two sequences

## Tue Apr 15 18:49:23 BST 2003

```
/usr/tmp/seq1.215975.sca : 472 aa
>gi|1352688|sp|P49653|P2X2_RAT P2X purinoceptor 2
                                                                                                              472 aa vs.
>gi|3702836|gb|AAC62935.1| hASIC3 [Homo sapiens],
scoring matrix: , gap penalties: -12/-2
17.1% identity; Global alignment score: -108
.: .: .:
                                                                                     gi|370 MKPTSGPEEARRQPSDIRVFASNCSMHGLGHVFGPGSLSLR-RGMWAAAVVLSVATFLYQ
                                                                           30
                                                                                            70
                                                                                                                80
/usr/t V-----WYVFIVQKSYQDSETG----PESSI--ITKVKGITMSEDKV-WDVEEYV--KP
                              gi;370 vaervryyrefhhqtaldereshrlyfpavtlcninplrrsrltpndlhwagsallgldp
                                                                             90
                                                      110
                                                                           120
/usr/t PEGGSVVSIITRIEVTPSQTLGTCPESMRVHSSTCHSDDDCIAGQLDMQGNGIRTGHCVP
                 The second section is a second section of the second section of the second section is a second section of the second section of the second section sec
gil370 Aehaaflralgrpfappgfmpsptfdmaqlyaraghslddml---ldcr---frgqpcgp
           120
                                130
                                                      140
                                160
                                                      170
/usi/t YYHGDSKTCEVSAWCPVEDGTSDNHFL----GKMAPNFTIL--IKNSIHYPKFKFSKGN
                                         gil370 ENF--TTIFTRMGKCYTFNSGADGAELLTTTRGGMGNGLDIMLDVQQEEYLPVWR---DN
                            180
                          210
                                                220
/usr/t IASQKSDYLKHCTFDQDSDPYCPIFRLGFIVEKAGENFTELAHKGGVIGVIINWNCDLDL
                                              ... : : .... : . ....
gil370 EETPFEVGIRVQIRSQEEPPI--IDQLGLGVSPGYQTFVSCQQQQLSF-LPPPWG---DC
                                  240
                                                           250
                                                280
                                                                     290
                                                                                                 300
/usr/t sesecnpkysfrrldpkydpassgynfrfakyyking---TTTTRTLIKAYGIRIDVIVH
                 gi|370 ssaslnpnyepepsdplgspspsp----sppytlmgcrlacetryvarkcgcrm-vymp
                          290
                                                                             350
                                                                                                  360
 /usi/t GQAGKFSLIPTIINLATALTSI-GVGSFLCDWILLTFMNKNKLYSHKKFDKVRTPKHPSS
                                                  :. .: : :
                                                                                                     gil370 GDVPVCSPQQYKNCAHPAIDAILRKDSCACPNPCASTR----YA-KELSMVRIPSRAAA
                                                            360
```

Sequence Alignment Output

420 400 390 380 . .: ::: . . .: .: : : : : : : : : g1|370 RFLARKINRSEAYIAENVLALDIFFEALNYETVEQKKAYEMSELLGDIGGQMGLFIGASL 430 420 410 450 440 430 /usr/t PLAVQS-PRPCSI-----SALTEQVVDTLGQH-----MGQRPPVP .: :::.: : g11370 LTILEILDYLCEVFRDKVLGYFWNRQHSQRHSSTNLLQEGLGSHRTQVPHLSLGPRPPTP 490 480 470 460 470 460 /usr/t EPSQQDSTSTDPKG---LAQL . :.. . gil370 PCAVTKTLSASHRTCYLVTQL 520 Elapsed time: 0:00:00